

ORIGINAL ABSTRACT

MULTISTANDARD VIDEO DECODER AND DECOMPRESSION SYSTEM FOR PROCESSING ENCODED BIT STREAMS INCLUDING A VIDEO FORMATTER AND METHODS RELATING THERETO

USSN: Not Yet Known

Status: Pending

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Total Claims: 37

A pipeline video decoder and decompression system handles a plurality of separately encoded bit streams arranged as a single serial bit stream of digital bits and having separately encoded pairs of control codes and corresponding data carried in the serial bit stream. The pipeline system employs a plurality of interconnected stages to decode and decompress the single bit stream, including a start code detector. When in a search mode, the start code detector searches for a specific start code corresponding to one of multiple compression standards. The start code detector responding to the single serial bit stream generates control tokens and data tokens. A respective one of the tokens includes a plurality of data words. Each data word has an extension bit which indicates a presence of additional words therein. The data words are thereby unlimited in number. A token decode circuit positioned in certain of the stages recognizes certain of the tokens as control tokens pertinent to that stage and passes unrecognized control tokens to a succeeding stage. A reconfigurable decode and parser processing means positioned in certain of the stages is responsive to a recognized control token and reconfigures a particular stage to handle an identified data token. Methods relating to the decoder and decompression system include processing steps relating thereto